Unit 5 - Week 4

Assignment 4

The due date for submitting this assignment has passed.

Due on 2019-06-26, 23:59 IST.

1. During organogenesis, as we move from the central zone towards the peripheral zone of the shoot apical meristem, the auxin concentration

   Decreases  
   Increases  
   is unaffected

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   Increases

2. With reference to the ABCDE model of flower formation what will be the final organ formation if A4 class of gene is mutated?

   Sepal 
   Stamen 
   carpel 
   petals 
   sepals

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   carpel

3. With reference to the ABCDE the following genes are responsible for flower development and organization:

   A1 
   B1, B2 
   B3, B2, B1 
   B4, B5

   Which of the above given genes are responsible for the formation of Stamina?

   5 only  
   3, 5 and 6 only  
   4 and 5 only  
   1 and 2 only

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   3, 5 and 6 only

4. Which of the following is NOT a floral transition gene

   BR1 
   G2 
   FT 
   AGAMOLOUS

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   AGAMOLOUS

5. Which of the following gene would you prefer to Knock Down if you want to stop cell to cell symplastic trafficking

   SI 
   SCR 
   GUS 
   SL23

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   SL23

6. In an experiment related to long distance cell communication you come across a gene which is expressed in the leaves but the protein is found in the apical meristem. If this movement is blocked the plant show delayed flowering. Which of the following could probably be the gene?

   A1 
   A1, A2, A3 
   A1, A2 
   A7

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   A1

7. Yes, this scenario clearly explains mutant which do not show organogenesis at SBM. When you locally apply auxin (growth at the shoot apex) a small sized organ like shoot can be induced. What could be the possible gene which is involved in this trait?

   SCR 
   RIN 
   ASYMOLOUS

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   ASYMOLOUS

8. With reference to the leaf development what is the correct sequence in the formation of leaf

   Blade initiation → Internodal growth → Epidermis growth → Tracheid cell development 
   Blade initiation → Epidermis growth → Internodal growth → Tracheid cell development 
   Internodal growth → Blade initiation → Tracheid cell development → Epidermis growth 
   Internodal growth → Epidermis growth → Blade initiation → Tracheid cell development

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   Blade initiation → Internodal growth → Epidermis growth → Tracheid cell development

9. Which of the following chemicals can be used for surface sterilization of explant during tissue culture?

   H2O2 
   70% ethanol 
   Clorox 
   both a and b

   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   both a and b

10. What is the principle behind the use of Agrobacterium tumefaciens for the transformation of plant tissue culture?

    Agrobacterium tumefaciens contains a gene which helps in the transfer of T-DNA to plants
    Agrobacterium tumefaciens has a plasmid which carries a gene that allows it to transform plant cells
    Agrobacterium tumefaciens carries a gene that helps to transfer to generate elements in the plant
    Agrobacterium tumefaciens has a gene which helps in the transfer of T-DNA to plants

    No, the answer is incorrect.  
    Score: 0  
    Accepted Answers:  
    Agrobacterium tumefaciens carries a gene that helps to transfer to generate elements in the plant